IN THE CLAIMS

This is a complete and current listing of the claims, marked with status identifiers in parentheses. The following listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) A bioartificial implant, comprising:

a semipermeable barrier designed –

–from one side, to allow diffusion or prevent diffusion of ~~predetermined~~ at least one of substances, ~~/~~ materials~~/~~, molecules~~/~~, cells~~/~~, and cell lines produced in the human body to ~~the~~ an~~other~~ –opposite side of the barrier, and designed

–from said ~~other~~ opposite side, to allow diffusion or prevent diffusion of ~~predetermined~~ substances which are the same as or different from the ~~first mentioned~~ substances~~/~~, materials~~/~~, molecules~~/~~, cells~~/~~, and cell lines, –

~~c h a r a c t e r i s e d in that~~ the semipermeable barrier ~~has~~ including a surface coating of a bioactive metal~~, such as titanium~~, said surface coating being permeable to allow or prevent said diffusions.

2. (Currently Amended) A bioartificial implant, comprising:

–a semipermeable barrier designed~~,~~ –

–from one side, to allow diffusion of body cell nutrient and oxygen from a ~~donee's~~ body of a donee to ~~the other~~an opposite side of the barrier where at least one of body organ~~/~~ and cells from a donor are positioned, and designed

–from said ~~other~~ opposite side to allow diffusion of substances selected in advance, produced by at least one of the ~~donor's~~ body organ and ~~/~~cells from the donor,

~~c h a r a c t e r i s e d in that~~ the semipermeable barrier ~~has~~ including a surface coating on said one side of

a bioactive metal, ~~such as titanium, which~~said surface coating ~~is~~ being permeable to allow said diffusions.

3. (Currently Amended) ~~An~~ The bioartificial implant as claimed in claim 1 ~~or 2~~, ~~c h a r a c t e r i s e d in that t~~wherein the metal is applied by an atomising process~~, such as sputtering or evaporation~~.

4. (Currently Amended) The bioartificial~~An~~ implant as claimed in ~~any one of claims 1-3, characterised in that it is~~claim 1, wherein the bioartificial implant is in the form of a container.

5. (Currently Amended) The bioartificial~~An~~ implant as claimed in ~~any one of claims 1-4, characterised in that~~claim 1, wherein the barrier has ~~said~~ the surface coating on both sides.

6. (Currently Amended) The bioartificial~~An~~ implant as claimed in ~~any one of claims 1-5, characterised in that~~claim 1, wherein at least one of the ~~coating/~~coatings has~~/have~~ a thickness from about 5 nm, such as about 50-250 nm.

7. (Currently Amended) ~~Use~~ A method, comprising:

using~~of~~ the bioartificial implant, as claimed in ~~any one of claims 1-6~~claim 1, as a bioartificial pancreas.

8. (Currently Amended) ~~Use of~~A method, comprising:

using the bioartificial implant, as claimed in claim 1, ~~the implant as claimed in any one of claims 1, 3-6~~ as part of a sensor on a measuring instrument.

9. (Currently Amended) A method for reducing the risk of at least one of formation and~~/~~ growth of connective tissue in connection with an implant ~~comprising~~ including a semipermeable barrier, the method comprising:

providing ~~characterised in that~~ the barrier, ~~is provided~~ at least on one side, with a permeable coating of bioactive metal.

10. (Currently Amended) The method as claimed in claim 9~~, characterised in that the~~, wherein the coating is prepared by atomising ~~(sputtering, evaporation)~~.

11. (New) The bioartificial implant of claim 1, wherein the surface coating of a bioactive metal includes titanium.

12. (New) The bioartificial implant of claim 2, wherein the surface coating of a bioactive metal includes titanium.

13. (New) The bioartificial implant as claimed in claim 2, wherein the metal is applied by an atomising process.

14. (New) The bioartificial implant as claimed in claim 2, wherein the bioartificial implant is in the form of a container.

15. (New) The bioartificial implant as claimed in claim 2, wherein the barrier has the surface coating on both sides.

16. (New) The bioartificial implant as claimed in claim 2, wherein at least one of the coatings has a thickness from about 5 nm, such as about 50-250 nm.

17. (New) A method, comprising:
using the bioartificial implant, as claimed in claim 2, as a bioartificial pancreas.

18. (New) A method, comprising:
using the bioartificial implant, as claimed in claim 2, as part of a sensor on a measuring instrument.

19. (New) The bioartificial implant as claimed in claim 1, wherein at least one of the coatings has a thickness of about 50-250 nm.

20. (New) The bioartificial implant as claimed in claim 2, wherein at least one of the coatings has a thickness of about 50-250 nm.